

REPORT

OF THE

Indian Tariff Board

ON THE

GRANT OF PROTECTION TO THE PAPER AND PAPER PULP INDUSTRIES



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PRELIMINARY.

The protective duties imposed on certain kinds of paper by the Bamboo Paper Industry (Protection) Act of 1925, expire on the 31st March, 1932, and the Government of India in Commerce Department Resolution No. 202-T (26), dated the 26th March, 1931, have referred to the Tariff Board the questions how far these duties have achieved their object and what measure of protection, if any, should be continued after the 31st March, 1932. The terms of the Government of India Resolution are as follows:—

“ Under the Bamboo Paper Industry (Protection) Act, 1925, protective duties were imposed on certain kinds of paper in order to develop the manufacture in India of paper from Bamboo. These duties will expire on the 31st March, 1932, and before that date it is necessary that an enquiry should be held in order to ascertain how far the Act has achieved its purpose and whether the continuance of protective measures beyond that date is desirable. The Tariff Board is therefore requested to examine the question and to consider what protective measures (if any) should be continued after the 31st March, 1932. In making its recommendations the Tariff Board will take all relevant considerations into account including that stated in part (b) of the Resolution adopted by the Legislative Assembly on the 16th February, 1923.

2. Firms or persons interested in the paper-making industry or in industries dependent on the use of paper who desire that their views should be considered by the Tariff Board should address their representations to the Secretary to the Board.

3. The Government of India hope that the Tariff Board will be able to submit their Report by the 15th October, 1931.”

2. The Board issued a Press Communique on March 30th, 1931, calling upon all firms and persons interested to submit written representations not later than May 1st.

The Board's Enquiry. Statements were received from all the leading Paper Mills in India as well as from Chambers of Commerce, the Paper Import and Traders' Associations and various individuals interested in the trade. The Board issued two questionnaires, one for manufacturers and one for importers and traders, and called for replies by the 20th June. We started on tour on July 12th and the actual programme of our enquiry was as follows:—

July 14th.—Inspected Andhra Paper Mills, Rajahmundry.

July 16th.—Arrived Calcutta.

July 20th.—Inspected Titaghur and Kankinara Mills.

July 21st.—Inspected Naihati Mill.

- July 23rd.*—Inspected Raniganj Mill.
- July 25th.*—Inspected Upper India Couper Paper Mills, Lucknow and took evidence.
- July 27th.*—Inspected Experimental Plant, Forest Research Institute, Dehra Dun and took evidence.
- July 30th.*—Arrived Calcutta.
- August 1st.*—Took evidence of India Paper Pulp Company.
- August 2nd.*—Took evidence of Titaghur Paper Mills Company.
- August 4th.*—Took evidence of Bengal Paper Mill Company.
- August 5th.*—Took evidence of Andhra Paper Mills Company.
- August 6th.*—Took evidence of Paper Importers and Paper Traders.
- August 8th.*—Took evidence of Controller of Printing and Stationery.
- August 29th.*—Inspected Deccan Paper Mills.
- August 30th.*—Took evidence of Deccan Paper Mills.
- September 21st.*—Took evidence of Mr. B. Abdy Collins, C.I.E., I.C.S., Director General of Commerce and Industries, His Exalted Highness The Nizam's Government, Hyderabad.

We wish to acknowledge the courtesy and assistance extended to us by the staff and the agents at all the Mills we visited and by Mr. Blascheck, the President of the Forest Research Institute, and his assistants.

APPENDIX I.

Statement showing quantity of finished paper and percentage of output represented by various materials.

	Bamboo.	Per cent.	Grass.	Per cent.	Other materials.	Per cent.	Wood pulp.	Per cent.
	Tons.		Tons.		Tons.		Tons.	
<i>I.—Tilghur Paper Mills Company.</i>								
1924-25	0·63	...	5,686·42	36·55	3,146·65	26·70	5,716·30	36·75
1925-26	10·23	0·06	3,841·61	23·91	4,625·75	23·78	7,592·41	47·25
1926-27	47·62	0·27	5,016·94	29·31	4,326·81	25·28	7,726·63	45·14
1927-28	112·40	0·63	4,636·19	26·23	4,154·54	23·51	8,771·87	49·63
1928-29	331·59	1·75	4,346·54	22·90	3,913·61	20·62	10,398·27	54·73
1929-30	165·28	0·88	5,279·33	28·17	3,848·81	20·54	9,447·58	50·41
1930-31	1,841·57	9·56	5,486·92	28·49	3,409·24	17·70	8,522·27	44·25
<i>II.—Bengal Paper Mill Company.</i>								
1924-25 . . . . .	..	..	2,626	41·36	1,998	31·47	1,725	27·17
1925-26 . . . . .	..	..	2,230	35·86	1,747	27·47	2,332	36·67
1926-27 . . . . .	..	..	3,195	38·53	1,775	21·41	3,321	40·06
1927-28 . . . . .	..	..	3,007	34·45	1,859	21·29	3,864	44·26
1928-29	1	0·01	2,740	29·87	2,238	24·40	4,194	45·72
1929-30	8	0·09	3,019	33·20,	1,898	16·32	4,672	51·39
1930-31	16	0·17	2,918	31·65	1,483	16·12	4,801	52·06

APPENDIX I—contd.

	Bamboo	Per cent.	Grass.	Per cent.	Other Materials.	Per cent.	Wood Pulp	Per cent.
	Tons.		Tons.		Tons.		Tons.	
<i>III.—India Paper Pulp Company.</i>								
1924-25	1,943	76.35	..	..	67	2.63	535	21.02
1925-26	1,738	73.09	..	..	4	0.17	636	26.74
1926-27	1,443	55.80	..	..	145	5.61	998	38.59
1927-28	1,453	33.34	..	..	297	6.81	2,002	59.85
1928-29	1,580	26.32	..	..	443	7.52	3,829	65.66
1929-30	1,653	27.29	..	..	634	10.47	3,769	62.24
1930-31	1,876	30.32	..	..	411	6.64	3,901	63.04
<i>IV.—Upper India Couper Paper Mills Company.</i>								
1924-25 . . . . .	..	..	407	23.92	1,294.47	76.08	..	..
1925-26 . . . . .	..	..	396	15.62	2,139.2	84.38	..	..
1926-27 . . . . .	..	..	572	21.66	2,051.7	77.73	16	0.61
1927-28 . . . . .	..	..	697	26.20	1,813.52	68.16	150	5.64
1928-29 . . . . .	..	..	650	22.66	2,060.19	71.80	159	5.54
1929-30 . . . . .	..	..	483	16.89	2,122	74.22	254	8.89
1930-31 . . . . .	..	..	405	14.97	1,995.8	73.76	305	11.27

APPENDIX II.

June 1930.
No. 1.

Pages 4—8.

THE TIMBER GROWERS' QUARTERLY REVIEW.

The Official Organ of the New Zealand Timber Growers' Association, Incorporated.

SOFTWOOD SUPPLIES OF THE BRITISH EMPIRE: BY FRAZER STORY (FORESTRY COMMISSION, LONDON).

(Extract from *Empire Forestry Journal*, Vol. 8, No. 1, 1929.)

(*Editor's Note.*—Mr. Story certainly leads us up to a startling conclusion to his survey when he informs us that in forty years from now very little will be left of the world's existing accessible virgin forests. His opinion, however, is backed by figures which are the result of the most careful possible investigations; and his reputation is such that the soundness of all his delivered opinions on this subject is quite indisputable.)

As the whole Empire, with the single exception of Canada, imports large quantities of softwoods, and as the world's supply of that class of timber is limited, it behoves us to examine the position. It is possible to do this afresh with the help of the statistics which have just been collected by the Forest Authorities of the Empire for presentation to the Empire Forestry Conference.

Consumption of Softwoods.

The Empire uses each year (in terms of round timber) over 1,900 million cubic feet of softwoods. Of this, some 935 million (49 per cent.) are utilised in Great Britain; 735 million (38 per cent.) in Canada; 90 million (49 per cent.) in Australia; 55 million (3 per cent.) in New Zealand; 3½ million (2 per cent.) in South Africa; and 63 million (3 per cent.) in other parts of the Empire. These figures represent in each case the amount actually utilised at home—they do not include the quantities of timber exported nor any destroyed by fire, etc.

Taking the various units of the Empire separately, the softwood requirements are briefly discussed below:—

Great Britain's Consumption of Softwoods.

Practically the whole of the softwood supply has to be imported—only 3 per cent. being produced at home. Apart from wood pulp, we import in an average year 9¼ million loads, valued at over £40,000,000. British possessions overseas contribute about 500,000 loads, or only 5 per cent. of the whole. The principal sources drawn upon are Finland and Sweden, which, taken together, send us about 3,500,000 loads (37 per cent.); Russia, Latvia and Poland, 2,500,000 loads (26 per cent.); France 1,400,000 loads (15 per cent.); and other foreign countries, 1,600,000 loads (17 per cent.).

Additional to the above is wood pulp, which during the last two years, was imported to the extent of 1¼ million tons, valued at just under £10,000,000. About 90 per cent. of this comes from Sweden, Norway and Finland, and only 8 per cent. from British Dominions.

Canada's Consumption of Softwoods.

In addition to its home utilisation of 735 million cubic feet, there is an exportation of 1,160 million cubic feet, of which fully 86 per cent. goes to the United States; the remainder is sent chiefly to Europe, Australia, and South Africa. Whereas exports to Great Britain are barely maintained, the quantity sent to the United States is rapidly increasing.

A particularly striking development in Canada is the remarkable expansion of the pulp and paper industry. That this has gone ahead by leaps and bounds is shown by the following figures:—In 1913 the quantity of newsprint produced was 35,000 tons; but in 1923 it had increased to 1,266,000 tons, and in 1927, partly as the result of overproduction, it amounted to fully two million tons.

Softwood Consumption in other Dominions.

Apart from Great Britain and Canada, the quantity of softwoods consumed in the Empire is about 239 millions cubic feet. Australia, New Zealand and South Africa take most of this.

Australia.—Australia obtains its softwoods mainly from the United States, but it imports also to some extent from Canada, Scandinavia, and New Zealand. Sweden and Norway contribute jointly about 20 per cent.

New Zealand.—Approximately 90 per cent. of the softwoods imported into New Zealand comes from the United States and Canada—in nearly equal proportions.

South Africa.—It is somewhat surprising to find that South Africa imports 75 per cent. of its softwoods from Baltic ports. Most of the remainder is obtained from the United States, and comparatively little from Canada.

Other Empire countries.—Although softwoods are required in varying quantities in other parts of the Empire, the demand in the aggregate only amounts to some 63 million cubic feet per annum, or 3 per cent. of the Empire's softwood consumption, and therefore their requirements do not seriously affect the general question under consideration.

Softwood Resources within the Empire.

The conifer forests of Canada occupy such pre-eminence among Empire softwood resources that the discussion may also be limited to the position in that country.

Canadian Resources.—According to a report submitted to the recent Empire Forestry Conference by the Canadian Forest Authority, conifers predominate on about 737 million acres. Of this area, however, only about 179 million acres are classified as accessible and merchantable, and only about 128 million acres carry mature, virgin timber. Taking the average of the last five years for which statistics are available (1922 to 1926), the annual cut of conifers has been 1,860 million cubic feet of standing timber, and a further volume of 1,380 million cubic feet is recorded as lost annually owing to forest fires, insects and fungus pests. The total annual depletion is, therefore, 3,240 million cubic feet. As the total stand of softwood timber in Canada is estimated to amount to 177,000 million cubic feet, of which (with existing means of transportation and at present prices) 100,000 million cubic feet are accessible and merchantable, it will be seen what serious inroads are being made into forest capital. It has also to be borne in mind that nearly three-quarters of Canada's original stock of merchantable timber has already disappeared.

The gravity of the position is, if anything, intensified by a personal inspection of the forest areas themselves. The magnificent white pine forests of Eastern Canada have gone, and the lumber industry is now concentrating on the great conifer forests of the West. Over 70 per cent. of the timber supplies of the Dominion are now to be found in British Columbia. The Eastern Provinces have been stripped of all but small-sized timber, and the remarkable expansion of pulp-milling and paper manufacture threatens the continuance of the little that remains.

The treatment of the old stands, the neglect or abuse of the young growth, in spite of the efforts of the Forest Service, the absence of care in the extraction of the product, and the large percentage of waste in utilisation, comes as a shock to the European forester. Speaking generally, no steps are taken to re-stock cleared areas with profitable species. During logging operations, all the valuable conifers are removed, fire nearly always breaks

out in the debris, and burns, with the litter, any remaining conifers. Most usually fire sweeps through the young growth twice or thrice subsequently. The result is that conifer forests are succeeded, not by new conifer forests, but by a more or less worthless growth of such species as birch and poplar. These trees must be regarded as weeds, for they have little or no value in themselves, and they take possession of denuded areas which ought to be occupied once more by conifers. It may be argued that eventually the pines, spruces and firs will reassert themselves; but it is obvious that in most cases the process will be an extremely slow one for, in Canada, the birches and poplars grow into large-sized trees, which will only very gradually give place to conifers.

What makes matters worse, in the more accessible logged-over areas, is the temptation—apparently irresistible—to remove any naturally-regenerated conifers which spring up among the broad-leaved trees as soon as they attain useful dimensions. Young poles of this description, being locally the only marketable produce, are quickly seized and disposed of, either on farms or in the pulp mills.

If fire could be kept out of the forests and some attention given to the preservation of mother-trees, there would be no fear of the maintenance of conifer crops, but only here and there does one see any sign of this being done. As Mr. R. D. Craig, Canadian Forest Resources Officer, has remarked, there seems to be no limit to the exploitation except the capacity of the market for absorbing the material produced.

The lack of regard for future crops seems to be principally due to thoughtlessness, but to some extent it is also attributable to impatience, for the nursing of a young forest up to the producing stages is a slow and tedious business. All things considered, it appears probable that the virgin conifer stands will rapidly disappear and that much of the succeeding growth will have little value.

Canada, no doubt, will always have sufficient quantity of softwoods to satisfy its own very considerable needs, and have something over—although before long not nearly enough—to meet the growing demands of the United States. As an Empire supply it is a failing source.

Softwood Resources of other Empire Countries.

Of other British Dominions, New Zealand is not altogether unfavourably situated, as its existing conifer stand is extensive and the country has definitely embarked on a vigorous afforestation programme. In course of time it may become entirely self-supporting. Australia, as far as my information goes, is less happily placed, and its present softwood importations to the extent of £4,000,000 a year, may have to be increased as the population grows. South Africa shows promise of extending its conifer plantations sufficiently to meet the country's requirements, but it will take many years to achieve this result.

Empire countries in the tropics do not contain very large areas of conifers; but some of the species are of considerable value—for example, the pencil cedar of Kenya Colony. In British India deodar and pines are of importance among softwoods, and the total area under coniferous species amounts to approximately 3½ million acres.

A time may come when the lighter, more easily-worked hardwoods of tropical countries may to some extent be utilised in place of conifers.

Great Britain, very poorly supplied with wood-lands, has at last taken up forestry with energy and in a business-like fashion. The Forestry Commission have faced the task of afforestation, in spite of the lengthy period which must elapse before newly-planted areas produce returns. The State is at present planting about 23,000 acres each year, and the rate may be increased. By means of grants, tree-planting by private individuals and local authorities is also encouraged. Much leeway has to be made up, because the total woodland area is very small, and bears little relation to the country's timber requirements.

Softwood Resources outside the British Empire.

This part of the subject is probably somewhat controversial, because in it must be discussed the resources of conifer regions, about some of which we know comparatively little. Everyone is aware that conifer forests are confined to the temperate regions, and are indeed almost limited to the broad belt which stretches across North America, North Europe, and on to the east of Asiatic Russia. It is true that there are considerable areas of conifers in New Zealand, parts of Australia, the Himalayas, and Brazil, but about 95 per cent. of the world's conifers occur in the north temperate zone, and principally in North America, Northern Europe, and Siberia. A review of the British Empire position in regard to softwood supplies necessitates reference to these regions.

American Resources.

Forest depletion in the United States has followed fairly similar lines to that in Canada. New England was the first district to be attacked and the lumber industry was later gradually developed in Pennsylvania and New York, whence operations, on a greatly extended scale, spread to the pine and spruce forests of the Lake States. Having made practically a clean sweep of the original forest area there, the great mills moved on to the Gulf States, which in turn are now so seriously threatened that there is further migration of the lumber industry to the West, where, in the States bordering the Pacific Coast, is found the one remaining extensive conifer forest region in the United States.

Instead of the forests being fairly evenly distributed in East and West, as was once the case, about three-quarters of the conifer stand is now to be found along the Pacific Coast. With the lumber industry concentrating upon that region, there is little prospect of its being able indefinitely to meet the demands made upon it.

The United States practically controls the world situation as regards timber consumption, because it uses nearly half the sawmill timber and more than half the wood-pulp of the world. Statistics show that the annual cut of softwoods is four times as great as the annual growth. The total annual drain upon the conifer forests is enormous, and is estimated to exceed 12,000 million cubic feet of standing timber. Although there are signs of a falling off in the rate of utilisation owing to economic causes, it is practically certain that consumption will continue on a scale which is far beyond the rate of growth. Consequently, the United States will draw more and more on Canada for its supplies, and will presently enter into keen competition with other countries for the remaining softwood supplies of the world.

European Resources.

The forests of Sweden and Finland, from which the British Empire obtains such a large percentage of its supplies, are fortunately managed with skill, and, for the most part, are carefully conserved.

Probably, neither of these countries may be able greatly to augment its exports in years to come; increase in population may swallow up what additional timber the forests may yield; but at least one feels pretty sure of their ability to maintain the output. The State Forestry Departments of these countries pursue the policy of restricting the amount felled to an equivalent of the annual increment.

Russian Resources.

An examination of the extremely important question of supplies from Russia brings one to the conclusion that the country's accessible conifer forests do not exceed 80 million acres. Further, it appears that the net increment on the merchantable area is approximately 1,600 million cubic feet, whereas the annual consumption amounts to about 3,400 million cubic feet. If this is anywhere near the mark, it naturally follows that the permanence of the Russian supply is by no means secure. Home consumption, as well as exportation, is reducing the supplies. Few realise that there are as many people in Russia as in the United States, and, of course, each inhabitant

uses a large quantity of timber. Russia has only four acres of forest per head of population, whereas Sweden has ten acres *per capita*, and Canada about sixty-eight. Precise figures are lacking, but it is obvious that with about 130 million inhabitants Russia's softwood consumption must be enormous.

(*Editor's Note.*—At the present time, Russia, without thought for the future, is feverishly realising on her accessible softwood stands and flooding the European market with her timber, in order to raise capital for industrial development.)

Siberian Resources.

The position in Siberia—the only other conifer region of importance—is obscure. The country has not been fully explored, and, therefore, the acreage and contents of its very extensive forests cannot be computed. Attempts to estimate resources have been made at various times, and that of Boris Baievski (1924) may be taken as possibly approximately true. He gives the total conifer area as 765 million acres. I need not describe here the character of the country, but it is evident that large deductions must be made to allow of swamp and scrub and poorly developed forest. Not many of the rivers are suitable for the floating of logs, and a further great deterrent to exploitation is the want of forest labour, which, under the circumstances, would be difficult to obtain from outside sources. In a paper prepared for the Empire Forestry Conference last year, I suggested that the effective area might be taken as 10 million acres of readily exploitable conifers, and if a stand of 1,000 cubic feet per acre be assumed, the total volume available is shown to be just equal to the accessible softwood resources of Canada. The estimate probably errs on the side of liberality—in other words, it is unlikely that the contents of the accessible conifer forests of Siberia amount to 100,000 cubic feet.

Resources of other Conifer Regions.

Accessible conifer forests in parts of the world not mentioned above here have an estimated total area of approximately 110 million acres. About 75 per cent. of these resources are found in Brazil, Mexico, China, and Japan, which are themselves large importers of softwoods. These resources, although important locally, are therefore of no great account when regarded from a world supply point of view.

Softwood Resources and Consumption compared.

If we compare the figures relative to the world's softwood consumption with the estimated contents of the world's conifer areas, the outlook is somewhat alarming. I have ventured to give some figures in the form of a table in order to summarise the available information and to present a picture of the position. The figures are not to be regarded as accurate, but they may help the reader to visualise the state of affairs:—

Accessible Conifer Forests (Estimated).	Approximate Resources. Million c.ft.	*Approximate Consumption— Annual Drain on Forests (amt. cut and destroyed). Million c.ft.
United States of America	390,000	12,000
Canada	100,000	3,200
Europe	285,000	8,000
Siberia	100,000	1,000
Other Regions	110,000	1,500
Total	985,000	25,700

* Expressed in terms of standing timber.

The estimated stand being about 985,000 million cubic feet and the annual drain about 25,700 million cubic feet, it follows that, AT THE PRESENT RATE OF CONSUMPTION, VERY LITTLE WILL REMAIN OF THE ACCESSIBLE VIRGIN FORESTS OF THE WORLD FORTY YEARS HENCE.

The calculation does not take into account increment on second-growth conifers in the intervening years, but the amount of this cannot in any case affect results appreciably, and new forests from artificial formation will, for the most part, be immature at the end of the period mentioned.

Assuming that second-growth and reforestation from now onwards make satisfactory progress, there is still the danger of an awkward gap between the virtual exhaustion of primeval forests and the time of harvesting the young crops.

It has been argued in certain quarters that softwood prices will rise, and that the rate of utilisation will consequently be checked. Unfortunately, such an easy solution of the problem is, I fear, untenable. World output is largely controlled by the big mills of North America, and in that country production on the largest scale is the settled policy of the lumbermen. The whole layout of the mills, together with the logging operations connected with them, is conceived on the plan of huge output—their very existence depends upon it. As a result, world markets are kept constantly provided with as much timber as they can take, and prices do not, and will not, show any marked increase. I firmly believe it will not be until the huge American sawmills are put out of action owing to the comparative exhaustion of the virgin conifer forests, that softwood production will be materially reduced. I suggest that little or no reliance be put upon a rise in price as a controlling factor in preventing the disappearance of the accessible virgin forests.

APPENDIX III.

Note by the Officer-in-Charge, Paper Pulp Section, Forest Research Institute, Dehra Dun, on the subject of the comparative strengths of bamboo and grass papers.

As desired by the Tariff Board, during the course of examination in July last, I have carried out tests on papers made purely from (a) *sabai* grass (*Ischemum angustifolium*) and (b) *Dendrocalamus strictus* bamboo. As is well known, the strength of paper depends largely on the manner in which the pulp from which it is produced is "beaten", that is, on the length and fibrillation of fibres and on the "Wetness" of the beaten pulp. The time required for "beating" a pulp is, therefore, determined by the degree of "wetness" and fibrillation required for the production of a particular grade of paper. In carrying out comparative tests on *sabai* grass and bamboo paper, therefore, "beating" was so manipulated that while the average length of ultimate fibres was kept unimpaired, as far as possible, the requisite degree of "wetness" was produced in the pulp to produce a strong sheet of as nearly as possible the same substance in the case of both grass and bamboo. This naturally required different periods of beating for the two pulps. The results of strength tests on typical sheets of this grass and bamboo paper are summarised in the table below:—

Temperature 85° F. Relative humidity 76.

	Bamboo.	Grass.
1. Breaking length in meters	3.636	3.561
2. Stretch per cent.	5.3	6.4
3. Burst Factor	24.2	23.7
4. Tear Factor	181	169
5. Double Folds	192	210
6. Freeness No. (Canadian tester)	116	70
7. Average length of fibres in paper in m.m.	2.30	1.9

Beating time for bamboo pulp was about 25 per cent. more than for grass pulp and yet, as is seen from the figures for freeness number in the table above, the bamboo pulp was not nearly so "wet" as grass pulp. Nevertheless, the paper produced from the bamboo pulp was, actually, stronger than that produced from the grass pulp. If the "beating" of bamboo pulp had been carried on for longer so that its "wetness" equalled that of the grass pulp, and in such a way that the ultimate fibres were not shortened, the paper produced from it would have been stronger still. The experiments do not, therefore, lend support to the view generally held that *sabai* grass yields a stronger paper than bamboo. The experiments do, however, show that bamboo fibre is comparatively more "free" than grass fibre and consequently requires longer time for beating in order to produce a desired degree of "wetness". Further experiments would have to be carried out to determine exactly the extra time required for beating bamboo pulp in order to produce from it paper, equal in strength to that produced from *sabai* grass. It would also be of value and interest to Paper Mills in this country, if experiments were carried out here to ascertain the conditions under which paper with a maximum strength can be produced from *sabai* grass and bamboo separately or from a mixture of the two fibres. These experiments would, however, require a long time to be carried out. Meanwhile a report on the tests carried out so far may kindly be forwarded to the Tariff Board.

Samples of grass and bamboo paper are attached herewith.

APPENDIX IV.

Statement showing the effect of replacing the protective duty by the Revenue duty on the finances of the Companies based on their latest figures.

1. Titaghur Paper Mills Company—

	Rs.
Average price realised, 1930-31, As. 3-3-43 per lb.	460 a ton.
Less duty at Rs. 140 a ton	140
	320
Add duty at 20 per cent.	64
	384 a ton
Total output 1930-31	19,260 tons.
	Rs.
Total receipts at Rs. 384 a ton	73,95,840
Deduct Works expenditure, 1930-31	69,35,052
	4,60,788
	Rs. Rs.
Block as at March 31st, 1930	44,20,701
Depreciation at 6½ per cent.	2,76,294
Loan outstanding on 31st March 1931	17,31,151
Interest at 6½ per cent.	1,12,525
Deduct for depreciation and interest	3,88,819
	71,969
	Balance

Charges for Managing Agency and Head Office Expenses in 1930-31 amounted to Rs. 2,08,763. The balance is not sufficient to meet this charge. The Company have mortgage debentures amounting to Rs. 30 lakhs on which interest works out at Rs. 2,30,000. This will not be met nor will there be anything to distribute as dividend.

2. The Bengal Paper Mill Company—

	Rs.
Average price realised, 1930, As. 3-1-84 per lb.	441 a ton.
Less duty at Rs. 140 a ton	140
	301
Add duty at 20 per cent.	60
	361 a ton.
Total output, 1930	9,218 tons.

	Rs.
Total receipts at Rs. 361 a ton	33,27,698
<i>Deduct</i> Works expenditure, 1930	32,34,123
	<hr/>
Surplus	98,575
	<hr/>

	Rs.
Block as at December 31st, 1929	13,83,169
<i>Deduct</i> depreciation at 6½ per cent.	86,448
	<hr/>
Balance	7,127
	<hr/>

In 1930 this Company produced 1,550 tons of wrapping paper which does not have the benefit of the protective duty. If we assume that on these 1,550 tons the Company would receive the average price without reduction, their total receipts would be increased by Rs. 1,24,000, giving a balance of Rs. 1,31,127 in all. This would barely suffice to cover their Head Office Expenses which are Rs. 1,98,607 and leave nothing for the Managing Agents' Commission, which in 1930 amounted to Rs. 83,961; the Company would not be able to find the Rs. 36,000 required to pay interest on their mortgage Debenture loan; nor would they be able to pay any dividend on their share capital.

3. India Paper Pulp Company—

	Rs.
Average price realised, 1930-31, As. 3-4-40 per lb.	471 a ton.
<i>Less</i> duty at Rs. 140 a ton	140
	<hr/>
	331
<i>Add</i> duty at 20 per cent.	66
	<hr/>
Price realisable at revenue duty	397 a ton.
	<hr/>
Total output, 1930-31	6,188 tons.
	<hr/>
	Rs.
Total receipts at Rs. 397 a ton	24,56,636
<i>Deduct</i> works expenditure, 1930-31	20,46,022
	<hr/>
Surplus	4,10,614
	<hr/>

	Rs.	Rs.
Block as at March 31st, 1930	29,24,918	
Depreciation at 6½ per cent.		1,82,807
Advance outstanding on 31st March 1931	20,23,379	
Interest at 6½ per cent.		1,31,845
	<hr/>	<hr/>

	Rs.
<i>Deduct</i> for depreciation and interest	3,14,652
	<hr/>
Balance	95,962
	<hr/>
Managing Agency and Head Office charges	73,167
	<hr/>
Balance	22,795
	<hr/>

The balance is not sufficient to pay a dividend of even 1 per cent. on the capital of Rs. 90 lakhs.

4. *Upper India Couper Paper Mills Company*.—The Company have not given the average price realised for their paper; but their oral evidence indicates that an approximate price of 3 annas a lb. in 1930 will not be far out.

	Rs.
This is equivalent to	420 a ton.
<i>Less</i> duty at Rs. 140 a ton	140
	<hr/>
	280
<i>Add</i> duty at 20 per cent.	56
	<hr/>
Price realisable at Revenue duty	336 a ton.
	<hr/>
Total output, 1930	2,600 tons.
	<hr/>
	Rs.
Total receipts at Rs. 336 a ton	8,73,600
<i>Deduct</i> Works expenditure, 1930	10,86,701
	<hr/>
Deficit	2,13,101
	<hr/>

This Company have about Rs. 11 lakhs invested, from which the interest in 1930 amounted to Rs. 74,122: even taking this receipt into account they are down by Rs. 1.39 lakh, before finding the Rs. 17,118 which they need for depreciation at 6½ per cent. on their block of Rs. 2,73,885, or the Rs. 36,750 which they spend on Head Office and Directors' fees or of course before declaring a dividend.

5. *Deccan Paper Mills Company*—

	Rs.
Average price realised, 1929-30, As. 2-9 a lb.	385 a ton.
<i>Less</i> duty at Rs. 140 a ton	140
	<hr/>
	245
<i>Add</i> duty at 20 per cent.	49
	<hr/>
Price realisable at Revenue duty	294 a ton.
	<hr/>
Total output, 1929-30	3,124 tons.

	Rs.
Total receipts at Rs. 294 a ton	6,24,456
Deduct Works expenditure, 1929-30	6,94,705
	<hr/>
Deficit	70,249
	<hr/>

18 per cent. however of this Company's output consists of wrappings which are not protected by the higher duty. If we allow the full average realised price on this proportion of their output—276 tons, their total receipts would be increased by Rs. 25,116; but would still be short of the amount of works expenditure by Rs. 45,133. For depreciation at 6½ per cent. on their block of Rs. 8,87,440 they need Rs. 55,465; and for interest at 6½ per cent. on a loan of Rs. 2,22,235 they need Rs. 14,445. They would thus have to make up at least Rs. 1 lakh before they could think of paying any dividend.